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Title: Murine Monoclonal Anti-Idiotype Antibody 11d10 and Methods of Use Thereof

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Pending Claims

6. A polynucleotide comprising a sequence encoding a polypeptide that is capable of eliciting an anti-HMFG immunological response in a mammal, wherein the polypeptide comprises an immunoglobulin variable region containing the three light chain complementarity determining regions (CDRs) of antibody 11D10 or an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10, wherein antibody 11D10 is produced by the hybridoma deposited under ATCC Accession No. HB-12020 or progeny thereof.

7. A polynucleotide according to claim 6, wherein the polypeptide comprises an immunoglobulin variable region containing the three light chain CDRs of antibody 11D10.

8. A polynucleotide according to claim 6, wherein the polypeptide comprises an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10.

9. A polynucleotide according to claim 6, wherein the immunoglobulin variable region is contained in SEQ ID NO:2.

10. A polynucleotide according to claim 6, wherein the immunoglobulin variable region is contained in SEQ ID NO:4.

11. A polynucleotide according to claim 6, wherein the encoding sequence is contained in the variable region encoding sequence in SEQ ID NO:1.

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12. A polynucleotide according to claim 6, wherein the encoding sequence is contained in the variable region encoding sequence in SEQ ID NO:3.

14. A polynucleotide comprising a region of at least 15 contiguous nucleotides of the sequence contained in SEQ ID NO:1, said region forming a stable duplex with a polynucleotide consisting of the light chain variable encoding sequence of SEQ ID NO:1 under hybridization conditions of 68°C and 0.15 M NaCl and 15 mM citrate buffer (1 X SSC).

15. A polynucleotide comprising a region of at least 15 contiguous nucleotides of the sequence contained in SEQ ID NO:3, said region forming a stable duplex with a polynucleotide consisting of the heavy chain variable encoding sequence of SEQ ID NO:3 under hybridization conditions of 68°C and 0.15 M NaCl and 15 mM citrate buffer (1 X SSC).

16. A polynucleotide according to claim 6, wherein the polynucleotide is a cloning vector.

17. A polynucleotide according to claim 6, wherein the polynucleotide is an expression vector.

18. The expression vector of claim 17, wherein the expression vector is vaccinia.

19. A host cell comprising the polynucleotide of claim 6, wherein the polynucleotide is a recombinant polynucleotide.

38. A composition comprising the polynucleotide of claim 6 and a pharmaceutically acceptable excipient.

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41. An immunogenic composition comprising the polynucleotide of claim 6 in an amount sufficient to elicit an anti-HMFG immunological response and a pharmaceutically acceptable excipient.

44. The immunogenic composition of claim 41, wherein the polynucleotide is comprised in a live virus or viral expression vector.

45. The immunogenic composition of claim 44, wherein the expression vector is vaccinia.

59. The polynucleotide of claim 6, wherein antibody 11D10 has the light and heavy chain variable region sequences contained in SEQ ID NO:2 and SEQ ID NO:4, respectively.

60. The composition of claim 38, further comprising an amount of the polynucleotide sufficient to elicit an anti-HMFG immunological response.

61. The composition of claim 41, further comprising an amount of the polynucleotide sufficient to elicit an anti-HMFG immunological response.

62. A polynucleotide according to claim 6, wherein the anti-HMFG immunological response comprises production of anti-HMFG antibody by the mammal.

63. A polynucleotide according to claim 6, wherein the anti-HMFG immunological response comprises production of anti-HMFG reactive T cells by the mammal.

64. A polynucleotide according to claim 6, encoding both an immunoglobulin variable region containing the three light chain CDRs of antibody 11D10 and an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10.

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65. A polynucleotide according to claim 64, wherein the variable regions are joined by a linked polypeptide of about 5 to 20 amino acids.

66. The immunogenic composition of claim 41, which is sterile.

67. A method of preparing a polypeptide capable of eliciting an anti-HMFG immunological response in a mammal, comprising expressing the polynucleotide of claim 6 in a host cell.

68. A method of preparing a light chain variable region of antibody 11D10 comprising expressing the polynucleotide of claim 72 in a host cell.

69. A method of preparing a heavy chain variable region of antibody 11D10 comprising variable region of antibody 11D10 comprising expressing the polynucleotide of claim 73 in a host cell.

70. A kit for eliciting an anti-HMFG immunological response in a mammal comprising the polynucleotide of claim 6 in suitable packaging.

71. A polynucleotide according to claim 64, wherein the light chain CDRs and the heavy chain CDRs are contained in SEQ ID NO:2 and SEQ ID NO:4, respectively.

72. A polynucleotide encoding an immunoglobulin variable region containing the three light chain CDRs in SEQ ID NO:2.

73. A polynucleotide encoding an immunoglobulin variable region containing the three heavy chain CDRs in SEQ ID NO:4.

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